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The Omaha Barometer

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2018

THE BAROMETER

An economic scorecard of the Omaha region



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Any questions regarding this report
should be directed toward the
Greater Omaha Chamber Business
Intelligence department at
402-346-5000.

WHERE DOES OMAHA STAND?

We can wait for the future or we can invent it.

As the Greater Omaha Chamber embarks on the implementation of Prosper 2.0, we are focused on creating a bold, new future based on people, place and prosperity. Through economic diversification, investment, and commitment to catalytic change, we can leverage our most powerful assets to encourage stronger population growth through talent attraction and retention — all while advancing opportunities for business growth and community-building.

Where do we stand today? The 2018 Barometer is our measuring stick, a chance for us to take a hard look at our progress and evaluate our region compared to others. To do this, we gauge our standing in eight key economic and performance-related areas: Growth, Human Capital, Innovation, Entrepreneurship, Infrastructure, Cost of Doing Business, Quality of Life and Private Capital. We benchmark ourselves against nine selected cities that are either our peers, competitors or thriving centers of growth and innovation.

After comparing ourselves to these high-performing cities, the 2018 Barometer shows that Omaha performs well across several areas and often ranks in the middle. We've advanced but at a slower pace than our aspirational cities. Our strengths include abundant arts and cultural opportunities, increasing standard of living, entrepreneurship, and low costs of doing business. We're constantly evaluative and have identified room for growth in innovative capacity, infrastructure, aspects of human capital and in job growth.

Based on our progress so far, we know an ambitious and prosperous future is within our reach. Working together, and with your support, we can transform what "could be" into what "will be" and achieve our greatest potential as a region.

Best regards,



President & CEO



Building on progress. Accelerating toward prosperity.

COMPARISON CITIES

We chose each of the nine comparison cities for the 2018 Barometer for very specific reasons.

PEERS

► Salt Lake City, UT

SLC has a metropolitan area population of 1.2 million people. While the landscape of the region is very different than ours, we have aspects in common, including proximity to an air force base that serves as one of the state's largest employers. The SLC region is a center for healthcare in Utah, and a national hub for innovation and entrepreneurship in the technology industry.

► Louisville, KY

This region of 1.3 million people crosses state lines into Indiana and is home to several post-secondary institutions, including University of Louisville and several smaller private four-year colleges. Located 40 miles northeast of Fort Knox, Louisville, like Omaha, has a strong military presence. It is the cultural and healthcare center for Kentucky and boasts a large transportation industry. Louisville is located 100 miles southwest of Cincinnati, a much larger city with professional baseball and football teams, similar to Omaha's relationship with Kansas City.

► Colorado Springs, CO

With a metropolitan population of more than 700,000, Colorado Springs is smaller than Omaha. Colorado Springs boasts two major military installations — Peterson Air Force Base and Colorado Springs Army Air Base. Major industries include healthcare and professional, scientific and technical services.

COMPETITORS

► Des Moines, IA

A fellow Midwestern city, Des Moines' major industries are finance and insurance, healthcare and social assistance. Its metropolitan population comes in at more than 600,000, and much like Omaha, it sits at the intersection of two major interstates: I-80 and I-35. Des Moines' low cost of living and affordable wages make it attractive to potential businesses.

► Kansas City, MO

This region's population of 2.1 million famously straddles two states, just like Omaha. Kansas City is known as a hub for financial services as an entrepreneurial and startup community. KC's population is well-educated: 35 percent of those 25 and older hold a bachelor's degree or higher.

► Oklahoma City, OK

With a population of 1.4 million, the Oklahoma City region boasts two medical schools and several major institutions, like Omaha. OKC is a healthcare center for its state and a national hub for the energy industry. Tinker Air Force Base is a major asset to the region.

ASPIRATIONAL CITIES

► Austin, TX

Austin has been overshadowed by Dallas and Houston for much of its life, but in the last 30 years, the city has come into its own. With its population of more than 2.1 million, Austin is home to a thriving creative class of entrepreneurs, innovators and musicians, as well as higher education institutions, including Texas State University and the Big 12 powerhouse of University of Texas at Austin.

► Raleigh, NC

Raleigh, with a population of 1.3 million, is positioned inside the research triangle where University of North Carolina at Chapel Hill, North Carolina State University, Duke University and three medical schools reside. Raleigh is a hotbed of high-tech activity and innovation, specifically in the areas of information technology and biotechnology.

► Nashville, TN

Nashville is known as the cradle of the country music industry, but it's also seen major economic development over the past four decades. Nearly 1.9 million people reside in the region's 13 counties and are the engine to its thriving entertainment scene, advanced manufacturing industry and higher education systems, including Middle Tennessee State University and Vanderbilt.

2018 RESULTS

The 2018 Barometer compares the economic performance and characteristics of the Omaha - Council Bluffs - Fremont metro with nine other metros to reveal strengths and opportunities for growth. Omaha continues to perform competitively when compared with these high-performing metros and has a strong advantage in entrepreneurship, business costs, and aspects of growth and quality of life. Our forward progress, while ongoing, continues to be outpaced, when measured relative to the Barometer's nine aspirational cities.

Maintains overall rank of 5 and increases score to 110

- ▶ Advances farther ahead of the U.S. average
 - 10% ahead compared to 8%
- ▶ Upholds placement in front of three competitors & two peer cities
- ▶ Lags behind all three aspirational cities & one peer city

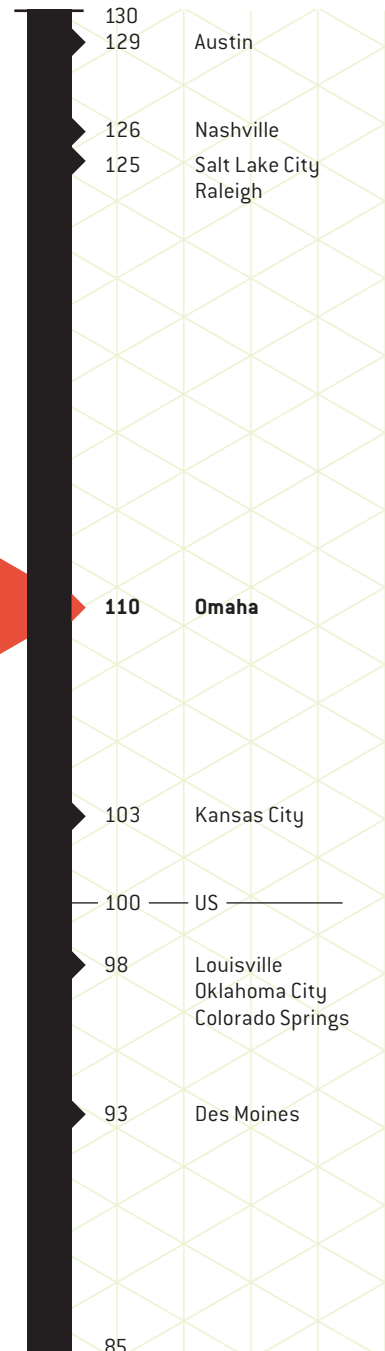
#5

Changes to this Year's Report:

For the first time, the Barometer shows a comparison over time. All values were re-estimated four years prior, using the same sets of measures and indexes as the 2018 Barometer. This truly shows Omaha's progress since 2014 and allows us to strive towards a bold, prosperous future.

To help us evolve and transform our future, we added four new 2018 measures to improve equity and growth benchmarks for our region:

- Real (inflation-adjusted) GDP growth rate
- Growth in the number of people aged 18 and older
- Minority share of the workforce
- Minority entrepreneurship share



2018 Index Ranks

#5



GROWTH

#9



HUMAN CAPITAL

#5



QUALITY OF LIFE

#3



ENTREPRENEURSHIP

#6



INNOVATION

#5



INFRASTRUCTURE CAPACITY

#2



BUSINESS COST

#4



PRIVATE CAPITAL

- Ranks high in Business Costs (2nd) & Entrepreneurship (3rd)
- Growth: Improves ranking to 5th due to faster wage growth
 - ▶ Advances to 22% above the national average
- Human Capital: Drops to 9th because KC improved more rapidly
 - ▶ Advances to 2.3 % above the U.S. average
- Sustains rankings on all other indexes: Quality of Life, Entrepreneurship, Innovation, Infrastructure, Business Costs & Private Capital

FIVE-YEAR RESULTS

Driving transformation. Striving for prosperity.

The Barometer shows our progress and evolution over the past five years. Have we accelerated economic growth compared to other thriving, successful cities? Or maintained our current momentum? By starting with our foundation in 2014, the 2018 Barometer helps us strengthen our advantages and uncover opportunities for further growth.

Results: 2014-2018

- **Maintains overall ranking of 5th**

- > This does not mean our progress has stagnated. In fact, we've improved our score by 3% - now we are 10% higher than the national average. However, we compare ourselves against thriving cities who have continued to advance more quickly than we have.

- **Forward progress outpaced by high-performing comparison metros**

- > We continue to fall further behind Nashville & Raleigh. While Omaha remains ahead of Colorado Springs and Kansas City, these two metros are closing the gap.
 - > We need to sustain and accelerate improvement to move up the rankings.

- **Building on strengths**

- > Growth: Improved from 7th to 5th, primarily due to growth in private wages
 - > Business Costs: Improved from 3rd to 2nd
 - > Quality of Life: Decreased the violent crime rate, moving that measure from 5th to 4th
 - > Innovation: Increased the number of science graduates, moving that measure from 4th to 3rd

- **Capitalizing on opportunities for growth**

- > Human Capital: Declined from 8th to 9th, primarily because other cities increased labor force participation rate and number of high school graduates more quickly.
 - > Entrepreneurship: Declined from 2nd to 3rd. This is still an area of strength for us, but we need to vigilantly cultivate our entrepreneurs.
 - > Private Capital: Declined from 3rd to 4th





GROWTH

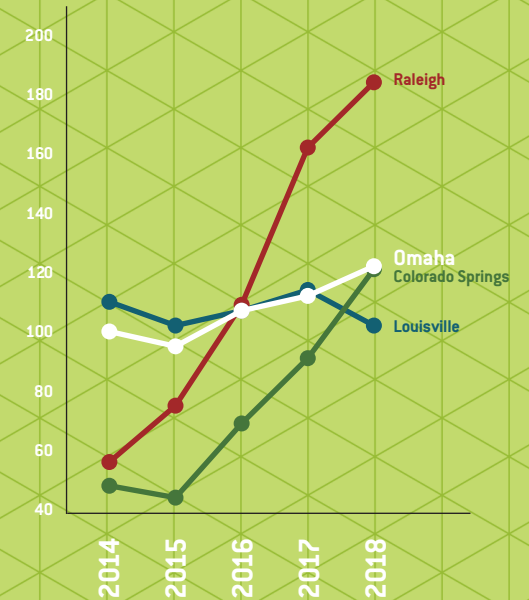
Prosperity depends in many ways on economic growth. Solid economic growth supports the performance of labor and property markets, and ensures opportunity for locally-oriented businesses. It also improves the likelihood that workers will stay employed and advance in their careers. Indicators of growth are the first and, perhaps, most interesting barometer for a metropolitan economy.

Indicators of growth include:

- Real GDP by Metropolitan Area
- Total employment growth
- Private wage growth
- Private wages per job
- Unemployment rate



#5



Improved from 7th to 5th over the past 5 years

- 22% gain since 2014
- CO Springs (No. 6) & Raleigh (No. 1) have overcome Omaha's moderate pace

Ranks high in wage growth and unemployment rate but lags in GDP and employment growth



Total Employment

Source: Current Employment Statistics, Bureau of Labor Statistics, 2014-2017 (accessed Feb. 2018)

1	NASHVILLE	206
2	AUSTIN	205
3	RALEIGH	192
4	SALT LAKE CITY	184
5	COLORADO SPRINGS	149
6	LOUISVILLE	137
7	DES MOINES	124
8	KANSAS CITY	119
9	OMAHA	77
10	OKLAHOMA CITY	45

Total employment growth captures the expansion of private sector and government job opportunities.

Omaha's employment grew by a cumulative 4.3% between 2014 and 2017. Growth in comparison metropolitan areas was even faster, so Omaha maintained a rank of 9.

Unemployment Rate

Source: Local Area Unemployment Statistics program, U.S. Department of Labor, 2017 (accessed Feb. 2018)

1	DES MOINES	66
2	OMAHA	67
3	NASHVILLE	67
4	COLORADO SPRINGS	70
5	SALT LAKE CITY	71
6	AUSTIN	72
7	KANSAS CITY	87
8	OKLAHOMA CITY	88
9	RALEIGH	89
10	LOUISVILLE	95

The unemployment rate typically rises during an economic recession and falls after the economy begins to recover. A low unemployment rate suggests an economy has experienced consistent growth.

Omaha's average unemployment rate in 2017 was 3.0%.

Private Wages

Source: Current Employment Statistics, Bureau of Labor Statistics, 2014-2017 (accessed Feb. 2018)

1	RALEIGH	178
2	NASHVILLE	163
3	AUSTIN	150
4	OMAHA	137
5	SALT LAKE CITY	131
6	KANSAS CITY	119
7	COLORADO SPRINGS	112
8	LOUISVILLE	97
9	OKLAHOMA CITY	80
10	DES MOINES	72

Growth in private wages provides a more comprehensive measure of economic growth. This category reflects both the increase in hourly wages and hours worked per week, as well as change in the level of private employment. Thus, the measure reflects earnings power and the number of jobs created.

Omaha's ranking has increased four spots, from 8th in 2014. From 2014 – 2017, private wages increased 19.0%.

Real GDP by Metro

Source: U.S. Economic Accounts, Bureau of Economic Analysis, 2014-2016 (accessed Feb. 2018)

1	AUSTIN	304
2	RALEIGH	284
3	NASHVILLE	229
4	SALT LAKE CITY	189
5	DES MOINES	141
6	COLORADO SPRINGS	117
7	LOUISVILLE	112
8	OKLAHOMA CITY	93
9	KANSAS CITY	74
10	OMAHA	60

Real (inflation adjusted) Gross Domestic Production (GDP) by metropolitan area provides a broad measure of economic output.

Omaha's real GDP grew by a cumulative 2.6% between 2014 and 2016. Since 2014, Omaha has fallen from 7th to 10th because we have been outpaced by other metros.

Private Wages per Job

Source: Current Employment Statistics, Bureau of Labor Statistics, 2013-2016 (accessed Feb. 2018)

1	OMAHA	187
2	RALEIGH	155
3	NASHVILLE	129
4	OKLAHOMA CITY	127
5	KANSAS CITY	121
6	AUSTIN	98
7	SALT LAKE CITY	88
8	COLORADO SPRINGS	84
9	LOUISVILLE	58
10	DES MOINES	33

Growth in private wages per job reflects improvement in the standard of living. Wages per job typically rise over time with inflation (and as the standard of living improves), but can fall when the economy creates new jobs with lower wages than existing jobs.

Omaha's rank has improved from 7th five years ago to 1st. From 2014 – 2017, private wages per job increased 13.6%.



HUMAN CAPITAL

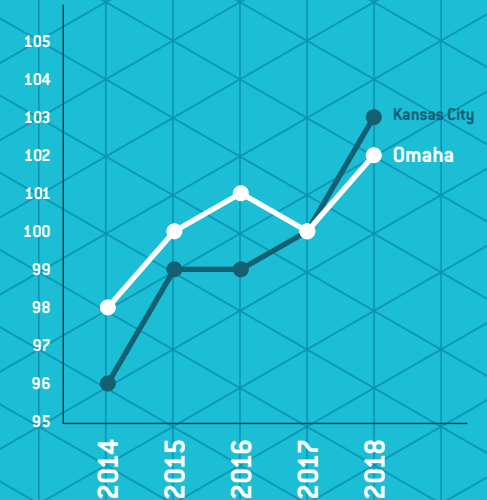
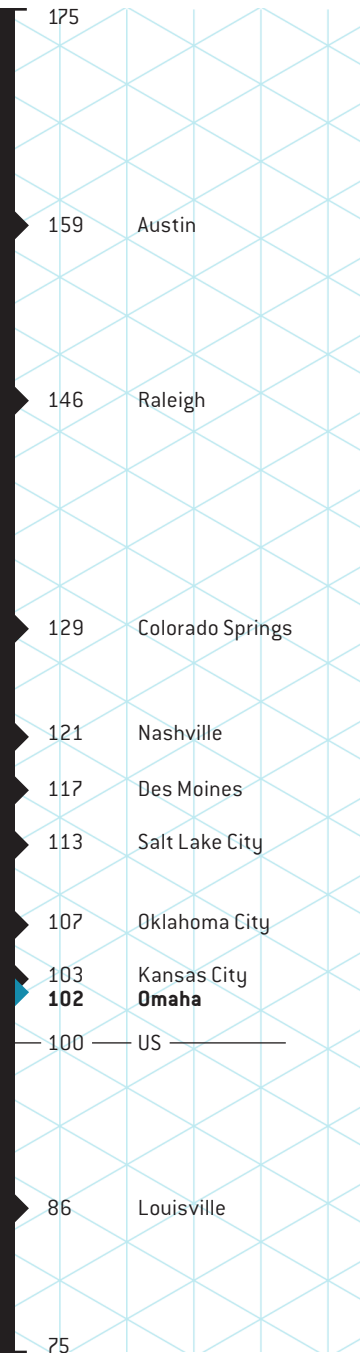
Human capital – the accumulated educational and occupational skill of the workforce – is critical for economic growth. A human capital index includes indicators of both experience and education, capturing the share of the workforce that continues to gain work experience, particularly in knowledge-intensive fields. After accounting for education and experience, a more diverse workforce brings a greater wealth of experience to the labor market. Growth in the labor force reflects how quickly the workforce is increasing, a necessary resource for businesses to expand.

Indicators of Human Capital include:

- High school attainment
- College attainment
- Labor force participation rate
- Percentage of knowledge workers
- Percentage of minority workforce
- Growth of population age 18+



#9



Dropped from 8th to 9th over past five years

- Omaha's human capital has not decreased – grown 3.8% since 2014
- Kansas City (No. 8) overtook Omaha because they improved more rapidly

Ranks high on number of high school graduates and employed adults

Lags aspirational and some peer metros in college graduates and participation in knowledge-based jobs



HUMAN CAPITAL

High School Attainment (Age 25+)

Source: American Community Survey, U.S. Census Bureau, 2012-2016 (accessed Jan. 2018)

1	COLORADO SPRINGS	108
2	DES MOINES	106
3	KANSAS CITY	105.1
4	OMAHA	104.7
5	RALEIGH	104
6	SALT LAKE CITY	103
7	AUSTIN	102.2
8	LOUISVILLE	102.0
9	NASHVILLE	101.8
10	OKLAHOMA CITY	101

Graduating high school or obtaining a GED remains an important first step for individual success. Graduates are better prepared to pursue opportunities in a changing economy compared to individuals who fail to finish school.

91.1% of people in Omaha have a high school degree, giving us a rank of 4th. Since 2014, we have been passed by Kansas City and dropped from 3rd place.

Share of Knowledge Workers

Source: Occupation Employment Survey, U.S. Bureau of Labor Statistics, 2014-2016 (accessed Jan. 2018)

1	COLORADO SPRINGS	113
2	AUSTIN	112
3	RALEIGH	111
4	DES MOINES	108
5	KANSAS CITY	105
6	OKLAHOMA CITY	104
7	SALT LAKE CITY	103
8	OMAHA	100
9	NASHVILLE	97
10	LOUISVILLE	85

Workers who find employment in knowledge-based occupations can better maintain and grow their skills. The share of workers in knowledge-based occupations – such as managers, financial workers, scientists, teachers and health care professionals – is a key human capital indicator.

With 31.3% of workers in knowledge-based occupations, Omaha reflects the national average and is about 4.0% behind No. 1 ranked Colorado Springs.

College Attainment (Age 25+)

Source: American Community Survey, U.S. Census Bureau, 2012-2016 (accessed Jan. 2018)

1	RALEIGH	146
2	AUSTIN	139
3	COLORADO SPRINGS	120
4	DES MOINES	118
5	KANSAS CITY	116
6	OMAHA	114
7	NASHVILLE	109
8	SALT LAKE CITY	106
9	OKLAHOMA CITY	96
10	LOUISVILLE	91

Graduating college provides improved opportunities for careers in a variety of higher-paying, knowledge-intensive industries.

Omaha has 4.3% more college graduates (34.6%) than the national average (30.3%).

Percent Minority Workforce

Source: Quarterly Workforce Indicators, U.S. Census Bureau, 2014-2016, End of Quarter (accessed Jan. 2018)

1	AUSTIN	126
2	RALEIGH	101
3	OKLAHOMA CITY	87
4	COLORADO SPRINGS	74
5	NASHVILLE	71
6	KANSAS CITY	67
7	SALT LAKE CITY	60
8	LOUISVILLE	59
9	OMAHA	57
10	DES MOINES	41

Along with skill and experience, workforce diversity is another key component of human capital. A diverse workforce brings a larger set of perspectives and experience to the workplace, potentially offering a broader set of solutions to the challenges which businesses must solve.

Racial and ethnic minorities accounted for an average of 20% of the Omaha workforce during the 2014 to 2016 period. Omaha ranked 9th, ahead of only Des Moines. The share of minority workforce has been rising steadily in Omaha, from 17.5% in 2010 to 20% in 2016, but Omaha has remained ranked 9th.

Labor Force Participation Rate

Source: American Community Survey, U.S. Census Bureau, 2012-2016 (accessed Jan. 2018)

1	DES MOINES	114.3
2	SALT LAKE CITY	111.8
3	OMAHA	111.7
4	AUSTIN	110.7
5	RALEIGH	109.3
6	KANSAS CITY	107.2
7	COLORADO SPRINGS	106.9
8	NASHVILLE	106.3
9	LOUISVILLE	102.7
10	OKLAHOMA CITY	102.7

Workers gain experience fastest in regions where a larger share of the population is participating in the workforce. Thus, the labor force participation rate is a key measure of human capital development.

More than 70% of Omaha adults are employed, which is 7% higher than the national average. In 2014, Omaha ranked 2nd, but has fallen slightly behind Salt Lake City.

Population 18 & Older Growth

Source: Population Estimates, U.S. Census Bureau, 2014-2016 (accessed Jan. 2018)

1	AUSTIN	363
2	RALEIGH	306
3	COLORADO SPRINGS	249
4	NASHVILLE	239
5	DES MOINES	214
6	SALT LAKE CITY	190
7	OKLAHOMA CITY	151
8	OMAHA	126
9	KANSAS CITY	116
10	LOUISVILLE	76

While workforce characteristics are a key measure of human capital, labor force growth also is critical. Businesses need strong growth in the supply of available workers to expand.

The population age 18 and over grew by 2.3% cumulatively in the Omaha metropolitan area over the 2014 to 2016 period. This growth rate was 0.5% faster than the U.S. average but ranks 8th, ahead of only Kansas City and Louisville.



INNOVATION

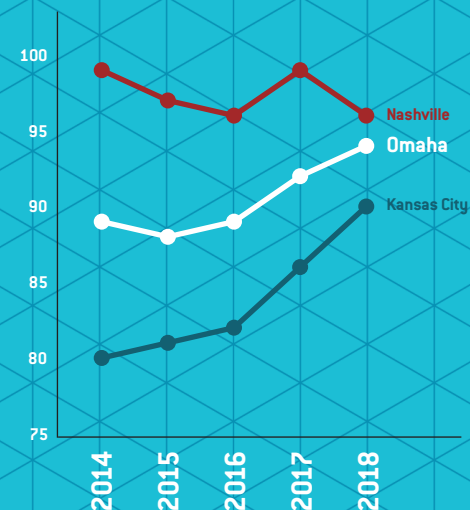
Innovation relates to the capacity to develop new methods and technologies with potential application in the economy. These technologies can spur high-value entrepreneurial ventures and enhance the productivity of workers. Innovation is measured via technical progress in both the private industry and education sector.

Indicators of innovation include:

- Share of jobs in tech positions
- IT sector share of jobs
- Patents per 10,000 workers
- NIH funding per job
- Science graduates



#6



Sustains ranking of 6th over past five years

- Omaha improves index score by 5% since 2014
- All metros maintain the same ranking
 - > Nashville (No. 5) remains ahead due to its very high level of NIH funding, but Omaha is closing the gap – poised to overtake Nashville soon
 - > Kansas City (No. 7) is slowly narrowing the gap with Omaha

Strengthens innovation in scientific research, especially NIH funding and science-related grads

Lags in patents per worker



INNOVATION

Share of Jobs in Technology Positions

Source: Occupation Employment Survey, Bureau of Labor Statistics, 2014-2016 (accessed Jan. 2018)

1	AUSTIN	177
2	RALEIGH	164
3	COLORADO SPRINGS	154
4	SALT LAKE CITY	118
5	KANSAS CITY	116
6	OMAHA	103
7	DES MOINES	98
8	OKLAHOMA CITY	97
9	NASHVILLE	80
10	LOUISVILLE	65

Private sector innovation occurs at businesses throughout the economy and can be tracked through the concentration of workers in occupations where scientific work and product-development take place.

Rates of innovation are elevated in metropolitan areas with a larger share of the workforce in the following occupations: computer and mathematical; engineering; and life, physical and biological science.

Omaha has 5.7% of its jobs in tech positions, which is 0.2% above the national average.

Science-Related Graduate Students per Capita

Source: National Center for Education Statistics, 2015-2016 (accessed Jan. 2018)

1	RALEIGH	263
2	AUSTIN	124
3	OMAHA	113
4	SALT LAKE CITY	110
5	OKLAHOMA CITY	108
6	LOUISVILLE	88
7	COLORADO SPRINGS	68
8	KANSAS CITY	64
9	NASHVILLE	63
10	DES MOINES	0

Innovative research in biomedical, computer science, engineering and physical science fields is achieved through a combination of faculty and graduate students. A concentration of graduate students in a metropolitan area indicates a focus on research activity.

Since last year, Omaha increased its rank one spot from 4th to 3rd. Our 5.0 graduates per 10,000 people are slightly above the metro average of 4.5.

Share of Jobs in the Information Technology Industries

Source: County Business Patterns database, U.S. Census Bureau, 2014-2015 (accessed Jan. 2018)

1	AUSTIN	261
2	RALEIGH	233
3	COLORADO SPRINGS	215
4	SALT LAKE CITY	142
5	KANSAS CITY	139
6	OMAHA	119
7	NASHVILLE	90
8	DES MOINES	84
9	OKLAHOMA CITY	51
10	LOUISVILLE	39

Rates of innovation also are elevated in metropolitan areas with a larger share of the workforce in software publishing, data processing and hosting, internet publishing and broadcasting and computer systems design industries.

IT industries comprise 2.8% of Omaha's economy. This is slightly greater than the national average of 2.3%.

NIH Awards per Job

Source: National Institutes of Health, 2014-2017

1	NASHVILLE	221
2	SALT LAKE CITY	146
3	RALEIGH	99
4	OMAHA	96
5	OKLAHOMA CITY	73
6	LOUISVILLE	54
7	AUSTIN	47
8	KANSAS CITY	46
9	COLORADO SPRINGS	12
10	DES MOINES	2

The National Institutes of Health (NIH) provides grant funding to innovative biomedical research. The level of NIH funding per worker in a metropolitan area shows biomedical innovation in universities, research institutes and private businesses.

Omaha sustained its rank of 4th from 2017 and has narrowed the gap, coming closer to reaching the national average.

Patents per 10,000 Workers

Source: U.S. Patent and Innovation Office, 2013-2015 (accessed Feb. 2018)

1	AUSTIN	294
2	RALEIGH	265
3	SALT LAKE CITY	96
4	COLORADO SPRINGS	86
5	KANSAS CITY	85
6	DES MOINES	70
7	LOUISVILLE	42
8	OMAHA	38
9	NASHVILLE	27
10	OKLAHOMA CITY	24

Patent activity broadly measures innovation by capturing the development of new products and technologies throughout the economy. Patents per 10,000 workers provides a measure of the concentration of activity within a metropolitan area.

With only 3.8 patents per 10K workers, Omaha trails the national average of 10.0, but remains ahead of one aspirational and one competitor metro.



ENTREPRENEURSHIP

Arguably the most critical type of human capital in a market economy, entrepreneurs combine workers, capital and other key resources to introduce new or improved products and meet growing demand. As a result, metropolitan areas with a more entrepreneurial population achieve faster growth.

Indicators of entrepreneurship include:

- Non-farm proprietors
- Non-farm proprietor income share
- Business services share of employment
- Average income per non-farm proprietor
- Minority entrepreneurship

#3



150
149 Nashville

131 Austin

125 Omaha

107 Oklahoma City

104 Kansas City

101 Salt Lake City

100 US

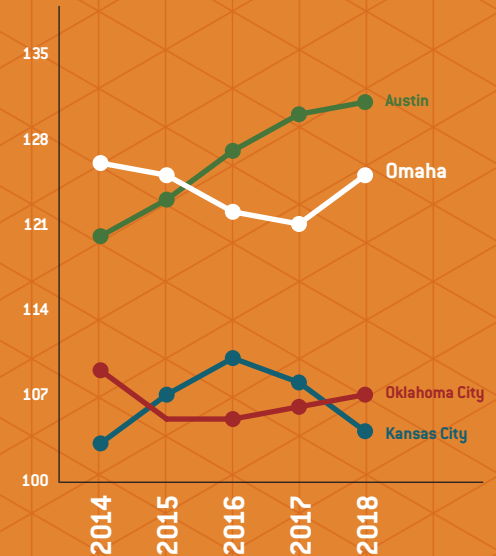
97 Raleigh

87 Colorado Springs

86 Des Moines

78 Louisville

75



Sustains rank of 3rd from 2017, but has dropped one spot since 2014

- Index value has stayed relatively stable, averaging about 24% above the U.S.
- Austin passed Omaha in 2016 with a significant increase in people who work in business services

Our successful entrepreneurs earn more than other metros

Fewer people are entrepreneurs

ENTREPRENEURSHIP

Non-Farm Proprietor per Person

Source: Regional Economic Information System, U.S. Bureau of Economic Analysis, 2014-2016 (accessed Jan. 2018)

1	AUSTIN	131
2	NASHVILLE	120
3	OKLAHOMA CITY	115
4	SALT LAKE CITY	113
5	RALEIGH	106
6	COLORADO SPRINGS	100
7	DES MOINES	96
8	KANSAS CITY	93
9	OMAHA	86
10	LOUISVILLE	84

The percent of the population that owns a business (non-farm proprietorship) is the first measure of the entrepreneurial activity.

Omaha has maintained its rank of 9th for the past five years. In 2018, we had 0.11 proprietorships per person, less than the national average of 0.13.

Business Services Employment Share

Source: Current Employment Statistics, U.S. Bureau of Labor Statistics, 2014-2017 (accessed Jan. 2018)

1	AUSTIN	157
2	RALEIGH	141
3	COLORADO SPRINGS	137.8
4	KANSAS CITY	137.6
5	SALT LAKE CITY	120
6	NASHVILLE	102
7	OMAHA	88
8	DES MOINES	87
9	OKLAHOMA CITY	82
10	LOUISVILLE	78

The business services sector includes some of the most dynamic parts of the economy including information technology, science and engineering. New businesses are commonly created in this growing sector. The percentage of people working in the business services sector captures this creation of high-value new businesses.

Only 5.4% of our jobs are in business services, just under the national average of 6.1%.

Non-Farm Proprietor Income Share

Source: Regional Economic Information System, U.S. Bureau of Economic Analysis, 2014-2016 (accessed Jan. 2018)

1	NASHVILLE	235
2	OMAHA	169
3	AUSTIN	152
4	OKLAHOMA CITY	135
5	SALT LAKE CITY	110
6	KANSAS CITY	105
7	DES MOINES	83
8	LOUISVILLE	75
9	RALEIGH	74
10	COLORADO SPRINGS	64

The percent of non-farm income earned by entrepreneurs (non-farm proprietors) provides another measure of entrepreneurship within the economy. This indicator reflects both the number of people engaged in entrepreneurship as well as the earnings of entrepreneurs.

Entrepreneurs earn 14.0% of all non-farm income in Omaha, more than 1.5 times the national average. Our successful entrepreneurs have boosted us to 2nd for five straight years.

Minority Entrepreneurship Share

Source: Survey of Business Owners, U.S. Census Bureau, 2012

1	AUSTIN	93
2	RALEIGH	92.4
3	OKLAHOMA CITY	92.1
4	NASHVILLE	83
5	DES MOINES	73.4
6	LOUISVILLE	73
7	COLORADO SPRINGS	72.7
8	SALT LAKE CITY	71.8
9	OMAHA	70.8
10	KANSAS CITY	70.6

The proportion of the minority population which owns a business is another key measure of entrepreneurial activity. The number of minority businesses were divided by the total minority population in that year. (Data from the 2017 survey will not be available until 2019.)

A smaller percent (5.0%) of the minority population owns a business in Omaha than the national average (7.0%). We are very close to our peer, Salt Lake City (No. 8).

Income per Non-Farm Proprietor

Source: Regional Economic Information System, U.S. Bureau of Economic Analysis, 2014-2016 (accessed Jan. 2018)

1	OMAHA	213
2	NASHVILLE	205
3	AUSTIN	123
4	KANSAS CITY	112
5	OKLAHOMA CITY	110
6	SALT LAKE CITY	89.8
7	DES MOINES	89.7
8	LOUISVILLE	83
9	RALEIGH	72
10	COLORADO SPRINGS	58

Income per proprietor rises when business owners operate in fields that are more lucrative and engage in full-time, rather than part-time, entrepreneurship.

Our entrepreneurs excel in their respective businesses, earning more than \$66,000 per year, which is twice as much as the national average. They have secured their No. 1 rank since 2014.



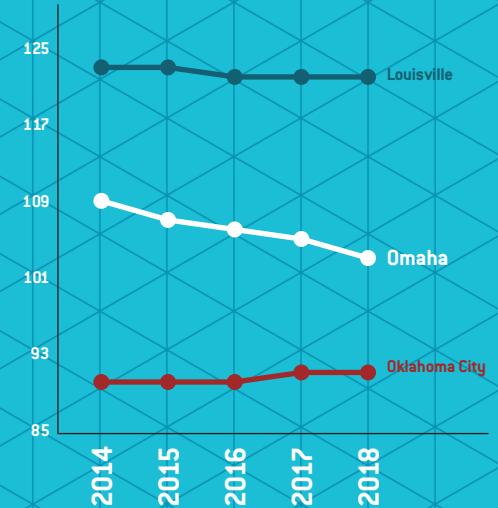
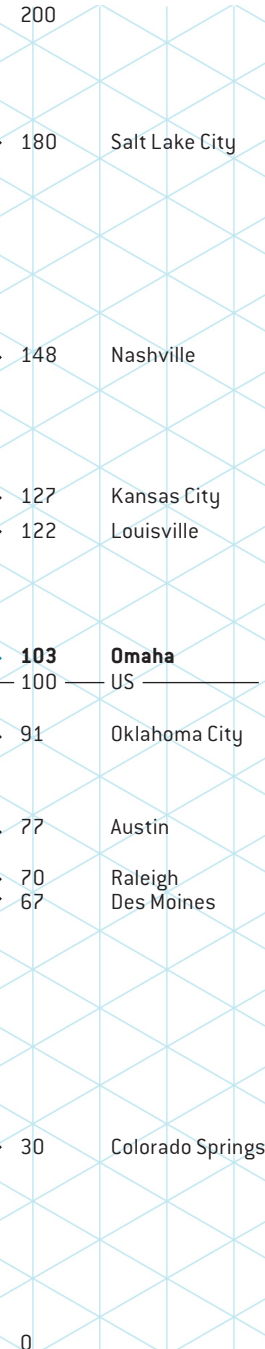
INFRASTRUCTURE

Metropolitan areas which serve as a hub for transportation activity have important additional advantages for growth. For example, hubs for air travel give headquarter locations direct flight options to visit out-of-town clients. Multiple interstate highways, or a thriving local logistics industry, provide manufacturing and warehousing firms a competitive edge.

Indicators of Infrastructure Capacity include:

- Miles of interstate highway
- Air passenger enplanements
- Transportation services

#5



Sustained rank of 5th since 2014

- Steady rank hides that our score has declined due to lower passenger enplanements and fewer jobs in transportation services
- Falling further behind 4th ranked Louisville and losing ground to Oklahoma City (No. 6)

INFRASTRUCTURE

Miles of Interstate Highway

Source: Transportation maps of relevant state transportation agencies

1	NASHVILLE	171
2	OKLAHOMA CITY	151
3	SALT LAKE CITY	134
4	KANSAS CITY	129
5	OMAHA	120
6	LOUISVILLE	109
7	DES MOINES	87
8	AUSTIN	39
9	RALEIGH	32
10	COLORADO SPRINGS	28

Metropolitan areas served by multiple interstate highways – or with abundant industrial sites along highways – have significant advantages for location and growth of manufacturing and warehousing activity. The miles of interstate highway located within a metropolitan area reflect both the length and number of interstates that traverse each metro.

We have 199 miles of interstate highway. The average for the 10 metros is 167 miles.

Passenger Enplanements

Source: Federal Aviation Administration, 2014-2016 [accessed Feb. 2018]

1	SALT LAKE CITY	268
2	NASHVILLE	147
3	AUSTIN	144
4	KANSAS CITY	130
5	RALEIGH	126
6	OMAHA	52
7	OKLAHOMA CITY	46
8	LOUISVILLE	41
9	DES MOINES	30
10	COLORADO SPRINGS	16

Airports that serve as hubs for national travel, or draw on a large regional passenger base, generate high levels of passenger travel and a variety of route options. Consequently, metropolitan areas containing airports with more passenger enplanements would provide an advantage to local business travelers.

With almost 2.1 million enplanements, we rank 6th and fall below the 10-metro average of 4.0 million. Our passenger enplanements have been steadily increasing, but at a slower pace than our comparisons.

Transportation Services

Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics, 2014-2016 [accessed Feb. 2018]

1	LOUISVILLE	215
2	SALT LAKE CITY	138
3	OMAHA	136
4	NASHVILLE	127
5	KANSAS CITY	121
6	DES MOINES	84
7	OKLAHOMA CITY	78
8	RALEIGH	51
9	AUSTIN	47
10	COLORADO SPRINGS	46

A large, local transportation and logistics industry provides an advantage for businesses. We capture these benefits through the share of metropolitan area employment in the transportation and warehousing industry.

Transportation services comprise 4.5% of our jobs, placing us ahead of the national average of 3.3%. A 0.1% decrease from last year allowed Salt Lake City to surpass Omaha.



COST OF DOING BUSINESS

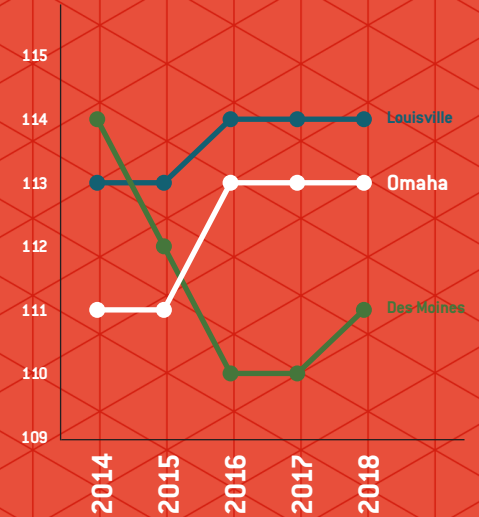
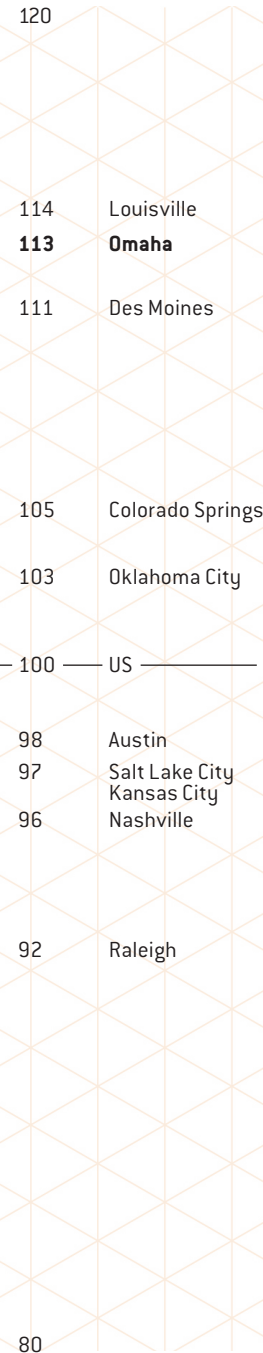
#2



Businesses operating within a metropolitan area face a variety of common “costs of doing business” that can make a serious impact on the bottom line.

Indicators of this index include:

- Hourly wage rates
- Space rental rates
- Industrial energy rates



- Climbed from 3rd in 2014 to 2nd in 2018**
- Score improved 2% since 2014
 - Narrowing gap with No. 1 Louisville – poised to potentially close the rank
 - Overtook Des Moines in 2015 and remains well ahead of the other seven metros



COST OF DOING BUSINESS

Labor Costs

Source: Occupation Employment Survey, U.S. Bureau of Labor Statistics, 2014-2016 (accessed Feb. 2018)

Occupations: accountants, software developers, lawyers, retail salesperson, licensed practical nurses, industrial machinery mechanics, and heavy truck and tractor-trailers drivers

1	LOUISVILLE	84
2	OKLAHOMA CITY	87
3	OMAHA	88
4	NASHVILLE	92
5	DES MOINES	93
6	KANSAS CITY	93.5
7	COLORADO SPRINGS	94.4
8	SALT LAKE CITY	95
9	RALEIGH	96
10	AUSTIN	98

Labor costs, the greatest expense for many businesses, refer to the general level of wages required for workers given a particular skill level. Labor costs are best measured by comparing hourly wages across metropolitan areas for a set of common occupations that reflect various skill and education levels.

We improved our ranking to 3rd from 5th in 2014. Our average wage rate for these occupations is \$28.92, which is 12% below the national average.

Space Costs

Source: LoopNet Real Estate, 2017 (accessed Feb. 2017)

1	DES MOINES	84
2	OMAHA	86.3
3	COLORADO SPRINGS	86
4	LOUISVILLE	88
5	OKLAHOMA CITY	91
6	KANSAS CITY	94
7	SALT LAKE CITY	105
8	NASHVILLE	112
9	RALEIGH	117
10	AUSTIN	136

Space costs are compared on a per-square-foot basis and reflect the costs for all types of business properties, including industrial, commercial and retail properties.

With our average rental rates of \$11.13 per square foot, we rank 2nd, climbing up from 4th in 2014.

Industrial Energy Costs

Sources: Lincoln Electric Systems' National Electric Rates Survey (2014-2017)

Energy Information Administration, U.S. Department of Energy (state natural gas rates), 2014-2017

1	AUSTIN	86
2	OMAHA	91
3	LOUISVILLE	92
4	DES MOINES	95
5	COLORADO SPRINGS	108.4
6	SALT LAKE CITY	107.6
7	NASHVILLE	111
8	RALEIGH	115
9	OKLAHOMA CITY	119
10	KANSAS CITY	129

Utility costs refer to the bundle of utilities, including electric, natural gas, water and sewer and broadband access. Consistent, comparable measures of cost, however, are limited for utilities and are most feasible for electric and natural gas utility rates. This indicator reflects average industrial rates for electricity and natural gas.

Our energy costs are 9.0% lower than the national average, giving us a rank of 2nd, up a spot from 2014.



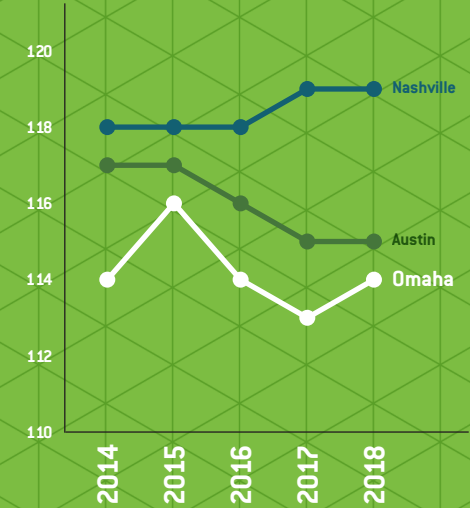
QUALITY OF LIFE

Quality of life plays a key role in attracting and retaining talent in a metropolitan area, making it a significant consideration for businesses that rely on those employees.

Key quality of life components include:

- Cost of living
- Air quality
- Commute time
- Climate
- Health care access
- Natural recreation amenities
- Violent crime rate
- Arts and culture

#5



Upholding rank of 5th and has since 2014

- Overtaking 4th-ranked Austin and could close gap with further improvements in human-made amenities

Gaining momentum in decreasing violent crime

Leading in abundant arts and cultural opportunities (No. 2), accessible health care (No. 1) and quick commute times (No. 2)

Natural disadvantages in climate and natural recreation amenities



QUALITY OF LIFE

Cost of Living

Source: Council for Community and Economic Research, 2017 Q1 – Q3 Average.

1	OKLAHOMA CITY	85
2	DES MOINES	89
3	KANSAS CITY	91
4	OMAHA	91.7
5	LOUISVILLE	92.2
6	COLORADO SPRINGS	95
7	RALEIGH	96.1
8	NASHVILLE	96.4
9	AUSTIN	96.8
10	SALT LAKE CITY	96.9

Cost of living is a comprehensive measure of the cost of household goods and services, such as housing, groceries, utilities and other common services.

Omaha's cost of living is 8.3% below the national average, slightly higher than Kansas City and slightly lower than Louisville.

Violent Crime Rate

Source: Unified Crime Reports, Federal Bureau of Investigations, 2014-2016 (accessed Feb. 2018)

1	RALEIGH	61
2	AUSTIN	80
3	OMAHA	93
4	DES MOINES	94
5	COLORADO SPRINGS	102.5
6	SALT LAKE CITY	102.6
7	LOUISVILLE	112
8	OKLAHOMA CITY	126
9	KANSAS CITY	146
10	NASHVILLE	165

Personal safety is a critical component of quality of life and can be captured by the violent crime rate. This indicator compares violent crimes per 100,000 people across the metros.

People commit 7.1% fewer violent crimes in Omaha than the U.S., an improvement over 2014 when we were ranked 5th.

Commute Time

Source: American Community Survey, U.S. Census Bureau, 2012-2016 (accessed Jan. 2018)

1	DES MOINES	77.0
2	OMAHA	77.4
3	OKLAHOMA CITY	85.8
4	SALT LAKE CITY	86.2
5	COLORADO SPRINGS	87
6	KANSAS CITY	88
7	LOUISVILLE	91
8	RALEIGH	97
9	AUSTIN	101
10	NASHVILLE	103

Commute time is a measure of the cost of living in terms of time, showing the ease of travel to destinations around a metropolitan area.

Omaha's average commute is 20.2 minutes, almost six minutes faster than the national average.

Arts and Culture

Source (accessed Jan. 2018): Quarterly Census of Employment & Wages, U.S. Bureau of Labor Statistics, 2014-2015
County Business Patterns, U.S. Census Bureau, 2014-2015

1	NASHVILLE	216
2	OMAHA	183
3	DES MOINES	163
4	SALT LAKE CITY	118
5	LOUISVILLE	102
6	KANSAS CITY	97
7	COLORADO SPRINGS	94
8	AUSTIN	86
9	OKLAHOMA CITY	78
10	RALEIGH	76

Access to arts and cultural opportunities is another key component to quality of life. Access rises with the number and level of activity at performance companies, presenting organizations, museums and zoos. Since some organizations do not report attendance, activity is measured via employment in arts and cultural activities per person.

Omaha offers abundant arts and cultural opportunities with 1.52 arts/cultural jobs per person, compared to the U.S. average of 0.83. We trail Nashville and have been 2nd since 2014.

Health Care Access

Source (accessed Jan. 2018): Occupational Employment Survey, Bureau of Labor Statistics, 2014-2016
Regional Economic Information System, U.S. Bureau of Economic Analysis, 2014-2016

1	OMAHA	132
2	LOUISVILLE	131
3	KANSAS CITY	121.3
4	NASHVILLE	120.7
5	OKLAHOMA CITY	119
6	SALT LAKE CITY	116
7	DES MOINES	115
8	RALEIGH	90
9	COLORADO SPRINGS	86
10	AUSTIN	83

Access to health care, a key quality of life amenity, generally rises when doctors, nurses and other health care professions account for a larger share of the workforce.

Number-one-ranked Omaha beats the national average by 1.0 percent with 3.3 percent of our population working in healthcare jobs.

Air Quality

Source: Air Quality Index Report, Environmental Protection Agency, 2014-2016 (accessed Jan. 2018)

1	DES MOINES	103
2	COLORADO SPRINGS	102.4
3	RALEIGH	102.3
4	OKLAHOMA CITY	101.9
5	AUSTIN	101.8
6	OMAHA	101.8
7	NASHVILLE	101.6
8	LOUISVILLE	97
9	SALT LAKE CITY	96
10	KANSAS CITY	93

Air quality is a critical indicator of pollution, measured for metropolitan areas by the Environmental Protection Agency (EPA). The EPA reports the share of days with good or moderate air quality each year.

In Omaha, 98.9% of the time, we have good or moderate air quality, slightly above the 10-metro average of 97.2%. However, our air quality has incrementally worsened, dropping us from 2nd to 6th in five years.



QUALITY OF LIFE

Climate

Source: Economic Research Service, U.S. Department of Agriculture

1	COLORADO SPRINGS	206
2	AUSTIN	140
3	SALT LAKE CITY	128
4	OKLAHOMA CITY	119
5	RALEIGH	109
6	KANSAS CITY	71
7	LOUISVILLE	70
8	NASHVILLE	67
9	OMAHA	56
10	DES MOINES	45

Quality of life also depends on climate. Key aspects of climate that contribute to comfort and outdoor activity include temperature, humidity and sunshine. The Economics Research Service has developed an index to measure climate amenities in metropolitan areas.

Omaha ranks 9th for climate amenities according to this index, primarily due to its cold winters and hot summers.

Natural Recreation Amenities

Source: Economic Research Service, U.S. Department of Agriculture

1	SALT LAKE CITY	254
2	NASHVILLE	183
3	AUSTIN	182
4	LOUISVILLE	175
5	COLORADO SPRINGS	145
6	DES MOINES	103
7	RALEIGH	94
8	OMAHA	92
9	KANSAS CITY	83
10	OKLAHOMA CITY	74

The natural recreation amenities available to a metropolitan area – such as temperature, humidity, sunshine, topography and access to water – affect quality of life, as well.

Omaha ranks 8th for natural recreation amenities according to this index, primarily due to its flat topography and moderate access to water.



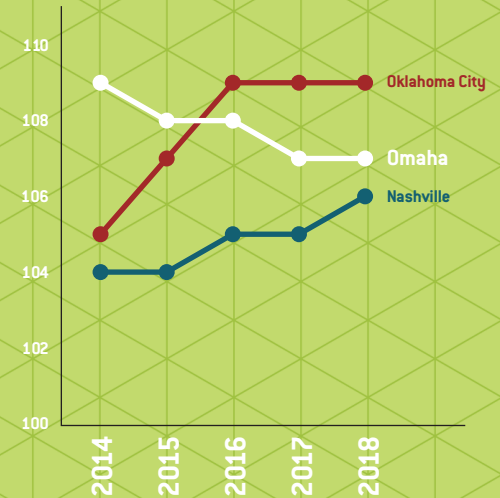
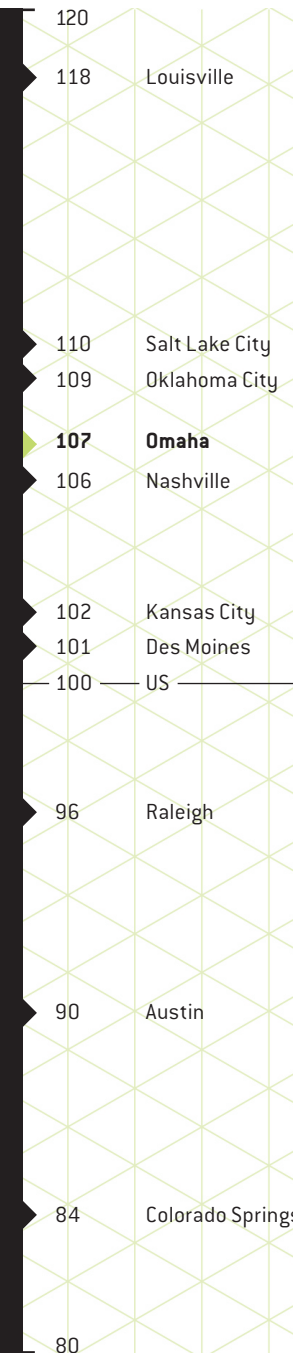
PRIVATE CAPITAL

Private capital such as machinery, software and buildings is a cornerstone of a productive economy. A stock of private capital complements human capital in raising worker productivity and ensures a larger metropolitan economy.

Indicators of Private Capital include:

- Equipment
- Structures
- Intellectual property products

#4



Fell from 3rd in 2014 to 4th in 2018

- 7% more private capital per job than the national average, reflecting importance of goods-producing industries such as manufacturing and warehousing to Omaha
- Passed by Oklahoma City because of their increase in the value of private structures

Possess strength in equipment & structures

Opportunities to improve stock of software or patented processes



PRIVATE CAPITAL

Private Equipment

Sources [accessed Feb. 2018]: National Income & Production Accounts, U.S. Bureau of Economic Analysis, 2014-2016
Current Employment Statistics, U.S. Bureau of Labor Statistics, 2014-2016

1	LOUISVILLE	121
2	SALT LAKE CITY	108
3	OMAHA	107
4	NASHVILLE	105
5	DES MOINES	104
6	KANSAS CITY	102
7	OKLAHOMA CITY	99
8	RALEIGH	87
9	AUSTIN	84
10	COLORADO SPRINGS	79

Private equipment includes the equipment/machinery that employees use to produce goods and services in factories, construction sites, warehouses, offices, health care facilities and stores. Metros with a higher concentration of capital-intensive businesses have higher levels of private equipment per worker.

Our businesses possess \$47,292 in private equipment per job, 7% more than the national average.

Private Structures

Sources [accessed Feb. 2018]: National Income & Production Accounts, U.S. Bureau of Economic Analysis, 2014-2016
Current Employment Statistics, U.S. Bureau of Labor Statistics, 2014-2016

1	OKLAHOMA CITY	153
2	LOUISVILLE	121
3	OMAHA	116
4	SALT LAKE CITY	110
5	NASHVILLE	106
6	DES MOINES	105
7	KANSAS CITY	104
8	RALEIGH	94
9	COLORADO SPRINGS	88
10	AUSTIN	87

Private structures house the factories, inventory, offices and stores that businesses use to serve their customers. The use and value of structures vary by industry, with industries such as manufacturing and warehousing often requiring more square feet of structures per worker.

Our businesses boast \$97,188 in private structures per job, 16% more than the national average.

Intellectual Property Products

Sources [accessed Feb. 2018]: National Income & Production Accounts, U.S. Bureau of Economic Analysis, 2014-2016
Current Employment Statistics, U.S. Bureau of Labor Statistics, 2014-2016

1	SALT LAKE CITY	112
2	LOUISVILLE	111
3	NASHVILLE	108
4	RALEIGH	107
5	KANSAS CITY	99.4
6	OMAHA	99.0
7	AUSTIN	98.8
8	DES MOINES	93
9	COLORADO SPRINGS	84
10	OKLAHOMA CITY	76

Intellectual property products such as software or patented processes are key to the efficient and productive operation of businesses. The use of intellectual property products varies by industry but is especially prevalent in manufacturing.

Our businesses own \$18,360 in intellectual property products per job, comparable to the national average of \$18,547. This year we increased one rank to 6th from 7th in 2017.

SUMMARY

We have revealed our strengths and uncovered opportunities for further growth by stacking ourselves against nine other high-performing metros on eight key economic areas. For the first time since its creation in 2014, the Barometer was revised to show the evolution of these assets and areas of improvement over time. Overall, Omaha upheld its rank of 5th for the fifth year in a row, striding farther ahead of the national average, but at a slower pace than many of our thriving comparison metros.

To continue to build on our progress and accelerate towards prosperity, we need to capitalize on our advantages and convert our growth opportunities into strengths.

OUR STRENGTHS



Growth

- ▶ Rapid rise in private wages, indicating a rising standard of living
- ▶ Low unemployment



Entrepreneurship

- ▶ Our prosperous entrepreneurs earn higher income than all of our comparison metros



Innovation

- ▶ Increases in science-related grads & NIH funding per job (indication of scientific research)



Quality of Life

- ▶ Leader with rich arts & cultural options, accessible healthcare and fast commutes
- ▶ Increases in public safety



Business Costs

- ▶ Maintaining position as one of the most affordable metros



Private Capital

- ▶ Valuable stock of private equipment & structures

OUR OPPORTUNITIES FOR GROWTH



Growth

- ▶ Slow, steady growth in jobs & GDP - Advantageous in that we minimize severe economic downturns but we are also losing ground to rapidly growing metros



Innovation

- ▶ Lower concentration of both IT-related industries and tech workers



Infrastructure

- ▶ Fewer passenger enplanements and gradually decreasing transportation & services industry



Human Capital

- ▶ Lagging in college graduates, knowledge-based jobs and minority workforce



Entrepreneurship

- ▶ Our entrepreneurs are more successful, but less numerous than other metros, especially in the business services industry and among minorities



Private Capital

- ▶ Trailing stock of software and patented processes



METHODOLOGY

In 2014, the Greater Omaha Chamber Research Department developed The Barometer: an Economic Scorecard of the Omaha Region. In 2015, we contracted an objective third-party, the University of Nebraska-Lincoln Bureau of Business Research (BBR), to develop a new methodology for the Barometer. The 2018 Barometer, is the fifth edition of the Barometer report. It was developed by the University of Nebraska-Lincoln Bureau of Business Research (BBR), in coordination with the Greater Omaha Chamber.

The 2018 Barometer is designed to evaluate and compare the economic performance and characteristics of the Omaha economy with nine other metropolitan areas from around the United States. These nine comparison areas are a set of prosperous metros including nearby competitors and peers of Omaha, as well as, the rapidly growing metropolitan areas of Austin, Raleigh and Nashville. Comparisons reveal strengths and challenges within the Omaha economy.

The 2018 Barometer explores metropolitan characteristics related to economic growth including human capital, private capital, infrastructure capacity, innovation, entrepreneurship, quality of life for households and the cost of doing business. Index values for each characteristic are calculated for Omaha and the nine comparison metropolitan areas of Austin, Colorado Springs, Des Moines, Kansas City, Louisville, Nashville, Oklahoma City, Raleigh and Salt Lake City. Indexes are calculated utilizing data from 2014 through 2017, or if 2017 data is not yet available, 2014 through 2016. All indicators were given an average index value equaling 100, based on either national averages or the average of all comparison cities, and then each comparison city was measured against that index value. Data on education attainment and other measures from the American Community Survey are based on five-year averages, from 2012 through 2016. An index of economic growth also is calculated for each metropolitan area, based on

growth from 2014 through 2017. The 2018 Barometer therefore reflects current conditions and recent growth in the metropolitan economies.

Changes to the 2018 Barometer from earlier editions include:

Time Comparison

- 2018 Barometer values were re-estimated 4 years prior using the same set of measures and indexes. This re-estimation will occur each year as data are revised and new measures added to the Barometer

New Measures

- Real (inflation-adjusted) GDP growth rate
 - Provides a broad measure of economic output by metropolitan area
- Growth in the number of people aged 18 and older
 - Provides a measure of labor force growth, which is critical to local economies to ensure businesses have a steady supply of workers
- Minority share of the workforce
 - Workforce diversity is a key component of human capital. If skill & experience are equal, a diverse workforce brings a larger set of perspectives and experience to the workplace, potentially offering a broader set of solutions to the challenges which businesses must solve
- Minority entrepreneurship share
- Measures the proportion of the minority population which owns a business

The data gathering and analysis work was completed by the BBR from December 2017 through February 2018. All data sources are cited within the report.

Any questions regarding this report should be directed toward the Greater Omaha Chamber Business Intelligence Department at 402-345-5000.